

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled).
2. (Currently Amended) A system as claimed in claim 144 wherein said second portion of each said reinforcement unit comprises a reinforcement member interconnected to said third portion such that said reinforcement member has a portion positioned above said upper surface of said panel member.
- 3-5. (Canceled).
6. (Previously Presented) A system as claimed in claim 91 wherein said at least one structural supporting member comprises first and second spaced structural supporting members and said system further comprises a plurality of generally longitudinally spaced and generally transversely oriented reinforcement units, and wherein each said reinforcement unit of said plurality of reinforcement units supports said form panel unit between first and second spaced structural supporting members, each said second portion of each said reinforcement unit of said plurality of reinforcement units comprises a first end portion mounted on one of said first and second structural supporting members and a second end portion mounted on the other of said first and second structural supporting members, whereby said panel member form panel unit can be supported by said first and second structural supporting members with said plurality of reinforcement units.
7. (Currently Amended) A system as claimed in claim ~~[[5]]~~ 144 wherein said second portion of each of said plurality of reinforcement units each comprises a plurality of

reinforcement members; said third portions of each of said plurality of reinforcement units each comprises a plurality of vertical rods; each said vertical rod secured to at least one of said reinforcement members said vertical rods passing from said upper surface of said panel member toward said lower surface of said panel member and engaging a connector which provides said upwardly directed surface that assists in supporting said form panel unit when construction material in said unhardened state is retained above said panel member.

8. (Previously Presented) A system as claimed in claim 7 wherein said reinforcement member of each of said plurality of reinforcement units has a first and second extension portion; said second extension portion being opposite to said first extension portion one of said first and second end extension portions supported on one of said first and second structural supporting members, and the other of said first and second end extension portions supported on the other of said first and second structural supporting members, and wherein said form panel unit is suspended from said upwardly directed surface of said first and second structural supporting members and between said first and second structural supporting members, and wherein each of said first and second structural supporting members has an upper portion extending above said upper surface of said panel member so as to be embedded in said construction material when said construction material is in said hardened state.

9-11. (Canceled).

12. (Previously Presented) A system as claimed in claim 8 wherein each said upper portion of said first and second structural supporting members is embedded in said construction material and generally configured as an upstanding elongated web portion linked with a horizontal flange having upper and lower transverse oriented surfaces and longitudinally oriented vertical surfaces embedded in said construction material when said construction material is in said hardened state.

-Page 6-

13. (Previously Presented) A system as claimed in claim 12 wherein said reinforcement member has a first end portion, and a second end portion opposite to said first end portion, said first and second portions are each supported in part by a transverse surface of one of said first and second structural supporting members and said first and second end portions of said reinforcement member extend over each of said respective first and second structural supporting members; said vertical rods of each reinforcement unit having an upper portion located above said upper surface of said panel member; said upper portion and said first and second end portions configured to allow suspension of said form panel unit such that said upper surface of said panel member is positioned lower than said lower transverse surface of said horizontal flange of said upper portion of said structural supporting member.
14. (Canceled).
15. (Previously Presented) A system as claimed in claim 144 wherein said panel member is made at least in part from a foam plastic having at least one laminated outer surface laminated with a plastic skin.
16. (Previously Presented) A system as claimed in claim 144 wherein said foam plastic is a foam polystyrene.
- 17-24. (Canceled).
25. (Previously Presented) A system as claimed in claim 144 wherein said construction material comprises concrete.
- 26-28. (Canceled).
29. (Previously Presented) A system as claimed in claim 145 wherein said first and second support portions of said second portion of said reinforcement unit are

supported directly upon upwardly directed surfaces of respectively said first and second structural supporting members.

30-33. (Canceled).

34. (Previously Presented) A system as claimed in claim 16 wherein said panel member is made from foam polystyrene is provided with a skin providing a greater flexural strength to said panel member.

35. (Original) A system as claimed in claim 34 wherein said skin is made from polypropylene or polyethylene.

36-68. (Canceled).

69. (Previously Presented) A system as claimed in claim 72 wherein said first and second supporting members each comprises an elongated structural support member generally configured in an L-shape or U-shape, said structural support members for use in supporting said panel unit, each said support member having an upstanding web having an upper elongated web portion, said upper web portion having a plurality of spaced apertures disposed along said elongated upper web portion and being positioned so that hardened construction material will be received through said apertures to embed said first and second supporting members in said slab.

70-71. (Canceled).

72. (Previously Presented) A system as claimed in claim 2 wherein said portion of said reinforcement member of said reinforcement unit positioned above said upper surface of said panel member is spaced apart from said upper surface of said panel member to reinforce said floor or roof slab when said construction material in a hardened state.

73. (Currently Amended) A system ~~as claimed in claim 144~~ for retaining load from a construction material having both unhardened and hardened states during fabrication of a floor or roof slab from said construction material, said system having components comprising:

a) a form panel unit comprising:

i. a panel member made from a foam plastic and adapted for use as part of said formwork system to retain said construction material when in an unhardened state, said panel member having an upper surface and a lower surface, said upper surface defining a shape of the lower surface of said slab, and said panel member having first and second opposed, transversely spaced, longitudinally extending side edges, said first and second side edges generally extending between a transversely extending front edge and a spaced transversely extending rear edge; said upper surface and said lower surface, said side edges, said front and rear edges of said panel member being configured for abutment with other components of said formwork system;

ii. at least one reinforcement unit being oriented transversely to said side edges of said panel member and longitudinally spaced from said front and rear edges, said reinforcement unit comprising a first portion and a second portion interconnected with a third portion; said reinforcement unit being interconnected to said panel member, said reinforcement unit contributing to internal reinforcing said panel member of said form panel unit and supporting said form panel unit, said first portion of said reinforcement unit adapted for reinforcing said panel member at an intermediate position that is transversely and longitudinally located between and distant from said side edges and said front and rear edges respectively of said panel member; said first portion comprising a rigidly interconnected generally oriented vertical section and a generally oriented horizontal section; said generally oriented horizontal section of said first portion of said reinforcement unit comprising a generally horizontally, longitudinally and transversely extending and upwardly directed surface that supports said form panel unit at proximate said lower surface of said panel member;

said second portion of said reinforcement unit adapted for supporting said form panel unit during fabrication of said floor or roof slab made from said construction material;

said form panel unit being capable of supporting said construction material above said panel member when in an unhardened state;

b) first and second spaced structural supporting members oriented generally longitudinally and adapted for assisting in supporting said form panel unit when fabricating said floor or roof slab with said construction material in said unhardened state;

said panel member being configured such that said form panel unit can be supported by said reinforcement unit at least partially by said first and second structural supporting members, such that said unhardened construction material can be retained above said upper surface of said panel member to permit hardening of said construction material from said unhardened state to said hardened state, said reinforcement unit oriented generally transversely to said first and second structural supporting members such that said load to said panel member can be carried by said first portion of said reinforcement unit from said intermediate position and transferred to said second portion of said reinforcement unit, said second portion transfers said load to said first and second structural members carrying said load, said second portion of said reinforcement unit having first and second opposed support portions, said first and second support portions being mounted respectively on upwardly directed surfaces of said first and second structural supporting members such that said form panel unit is at least in part supported by said first and second structural supporting members;

wherein said reinforcement unit comprises a fourth portion configured as a rod secured to said third portion between said second portion and said upper surface of

said panel member and said panel member is compressed between said first and said fourth portions of said reinforcement unit.

74. (Previously Presented) A system as claimed in claim 3 wherein each of said plurality of reinforcement units comprises a fourth portion configured as a rod secured to said third portion between said second portion and said upper surface of said panel member and panel member is compressed between said first and said fourth portion of said reinforcement unit.

75. (Currently Amended) A formwork system for retaining load from a construction material having both unhardened and hardened states during fabricating a floor and/or roof [[slab]] structure, without a temporary supporting member, said system having a plurality of components comprising:

a) a plurality of form panel units, each form panel unit comprising:

i. a panel member made from a foam plastic and adapted for use as part of a form, to retain above, and support said load associated with said construction material when in an unhardened state, said panel member having opposed upper and lower surfaces and opposed side surfaces; said upper, lower and side surfaces configured for abutment with other of said components of said formwork system; said lower surface of said panel member comprising substantially only said foam plastic of said panel member;

ii. at least one reinforcement unit having one or more components ~~all of which contribute only to supporting~~ comprising a unitary structure, said reinforcement unit being directly connected to said panel member of said form panel unit and no other panel member of any other form panel units of said plurality of form panel units, said at least one reinforcement unit having at least one strengthening member for only strengthening said panel member to which it is directly connected and no other panel

member of any other panel unit of said plurality of panel units, said at least one member being oriented generally in a first direction, said at least one reinforcement unit remaining as part of said floor and/or roof structure when said concrete is in a hardened state;

said form panel unit with said at least one reinforcement unit being capable of supporting said construction material above said panel member when in an unhardened state without any temporary supporting members;

b) at least one structural supporting member oriented in a second direction that is generally perpendicular to said first direction;

said form panel unit being supported at least partially by said at least one structural supporting member, such that said unhardened construction material can be retained and supported above said upper surface of said panel member to permit hardening of said construction material from said unhardened state to said hardened state, wherein at least a part of said load on said form panel unit is transferred to said strengthening member and wherein the strengthening member in turns transfers at least part of said load transversely to said at least one supporting member, such that said form panel unit is at least in part supported by said at least one structural supporting member.

76. (Previously Presented) A system as claimed in claim 75 wherein said strengthening member is mounted in a position such that said strengthening member has a portion positioned above said upper surface of said panel member.
77. (Previously Presented) A system as claimed in claim 75 wherein said strengthening member is positioned and spaced from said upper surface of said panel member such that said strengthening member reinforces said floor or roof slab when said construction material is in said hardened state.

78. (Previously Presented) A system as claimed in claim 75 wherein said system comprises a plurality of reinforcement units each being generally transversely oriented and longitudinally spaced from each other and said plurality of reinforcement units being supported at least in part by said at least one structural supporting member such that said form panel unit is at least in part supported by said at least one structural supporting member.
79. (Previously Presented) A system as claimed in claim 76 wherein at least one structural supporting member comprises first and second structural support members both oriented generally in said second direction that is generally orthogonal to said first direction, and both said first and second structural supporting members being adapted for assisting in supporting said form panel unit when fabricating said floor or roof from said construction material in said unhardened state and wherein each of said plurality of reinforcement members is supported at least in part by both of said first and second structural supporting members such that said form panel unit is at least in part supported by said first and second structural supporting members.
80. (Previously Presented) A system as claimed in claim 76 wherein said panel member is made at least in part from a foam plastic.
81. (Previously Presented) A system as claimed in claim 80 wherein said foam plastic is a foamed polystyrene.
82. (Previously Presented) A system as claimed in claim 80 wherein said said panel member made from foam polystyrene is provided with a skin providing for greater flexural strength to said panel member.
83. (Original) A system as claimed in claim 82 wherein said skin is made from polypropylene or polyethylene.
- 84-90. (Canceled).

91. (Currently Amended) A formwork assembly for fabricating a floor or roof slab from a construction material, said construction material having both hardened and unhardened states, said assembly having a plurality of components comprising:

a) a plurality of panel units, each said panel unit comprising:

i. a panel member made from a foam plastic; said panel member having opposed upper and lower surfaces, opposed transversely spaced side surfaces and opposed longitudinally spaced front and rear surfaces; said panel member having at least one surface configured for abutment with at least one other of said components of said assembly;

ii. at least one panel reinforcement unit comprising a unitary structure and having at least one transversely oriented panel support member integrated with said panel member for reinforcing said panel member of said panel unit, said panel support member having at least a portion that is embedded and extends within said panel member between proximate an upper surface of said panel member to proximate a lower surface of said panel member to reinforce said panel member, said panel support member of said reinforcement unit strengthening only said panel member in which said portion is embedded and none other of said panel units of said plurality of panel units;

said panel unit and said at least one reinforcement unit being capable of supporting said construction material above said panel member when in an unhardened state without a temporary support member;

b) at least one structural support member having interconnected longitudinally oriented upper and lower portions, said at least one structural support member adapted to support at least in part said panel unit during said fabrication of said floor or roof slab when said construction material is in an unhardened state;

said unhardened construction material positioned above said panel unit being supported at least in part by said transversely oriented panel support member, said transversely oriented panel support member being supported at least in part on said at least one structural supporting member, said construction material enveloping at least an upper portion of said at least one structural supporting member when said construction material is in said hardened state.

92. (Previously Presented) An assembly as claimed in claim 91 wherein said panel support member is also adapted to reinforce the concrete floor or roof slab and being enveloped by said construction material when said construction material is in said hardened state.
93. (Previously Presented) A system as claimed in claim 7 further comprising each said reinforcement unit having a spacer member interconnected to said third portion and said second portion of said reinforcement unit and positioned above said upper surface of said panel member, whereby said panel member is compressed between each said connector and said spacer member.
94. (Previously Presented) An assembly as claimed in claim 99 wherein said reinforcement member is also positioned to be enveloped by said construction material when said construction material is in said hardened state.
- 95-103. (Canceled).
104. (Previously Presented) An assembly as claimed in claim 91 wherein said panel member is made from a foam plastic having at least one or said upper or lower surfaces laminated with a strength enhancing skin.
105. (Previously Presented) An assembly as claimed in claim 104 wherein said foam plastic is a foam polystyrene.

106. (Canceled).
107. (Previously Presented) An assembly as claimed in claim 91 wherein said foam plastic is a foam polystyrene.
- 108-113. (Canceled).
114. (Previously Presented) An assembly as claimed in claim 92 wherein said at least at least one structural support member has a pair of webs configured in a generally L or U-shaped configuration, each web having an upper elongated web portion, said upper web portions having a plurality of spaced apertures disposed along said elongated upper web portion, and being positioned so that construction material will be received through said apertures to anchor said at least one structural supporting member is said construction material.
115. (Previously Presented) An assembly as claimed in claim 92 wherein said at least at least one structural supporting member has an elongated upper portion interconnected with an elongated web portion, said upper portion embedded in said construction material and being generally configured as an upstanding elongated web portion linked with a horizontal flange, said flange having have upper and lower transverse oriented surfaces and longitudinally oriented vertical surfaces embedded in said construction material in said hardened state.
- 116-121. (Canceled).
122. (Previously Presented) A formwork assembly as claimed in claim 144, wherein said second portion of said reinforcement unit comprises a rebar member.
123. (Previously Presented) A system as claimed in claim 15 wherein said laminated outer surface is arranged to contact said construction material.

-Page 16-

124. (Previously Presented) A system as claimed in claim 91 wherein said panel member has both an upper laminated surface and a lower laminated surface strengthening said panel member.
125. (Previously Presented) A system as claimed in claim 15 wherein said laminated surface is a polypropylene laminated surface.
126. (Previously Presented) A system as claimed in claim 124 wherein said upper and lower laminated surfaces are polyethylene laminated surfaces.
127. (Canceled).
128. (Currently Amended) A formwork system for use in fabricating a slab from a construction material having both unhardened and hardened states, said formwork system comprising:
 - (a) a form panel unit comprising:
 - i. a panel member made from a foam plastic material and having upper and lower surfaces, ~~said upper surface having a shape providing a negative for at least a part of a shape of said slab~~, said panel member being adapted to be used as part of a form to retain said construction material above said upper surface in an unhardened state;
 - ii. at least one, generally transversely oriented reinforcement unit, said reinforcement unit for reinforcing said panel member and having at least one panel support member having a portion for engagement with a structural supporting member oriented generally transverse to said panel support member;

said reinforcement unit further comprising a reinforcing portion embedded in said panel member and extending from proximate said upper surface of said panel member to proximate said lower surface of said panel member to reinforce said panel member;

said form panel unit with said reinforcement unit being capable of supporting said construction material above said panel member when in an unhardened state;

(b) at least one structural supporting member;

said panel support member having a portion for engagement with said at least one structural supporting member oriented generally transverse to said panel support member;

said form panel unit being supported at least in part on said structural supporting member by said panel support member of said reinforcement unit oriented generally transversely to said structural supporting member, such that said unhardened construction material can be retained above said panel member and be supported at least in part by said form panel unit;

and wherein said reinforcement unit comprises at least one connecting member that extends from proximate said upper surface of said panel member toward said lower surface of said panel member and engages said reinforcing portion of said reinforcement unit which assists in supporting said form panel unit when unhardened construction material is retained above said panel member, said at least one connecting member being interconnected to said at least one panel member;

and wherein said reinforcement unit comprises an upper compression member positioned above said upper surface of said panel member, whereby said panel member is compressed between said connecting member and said upper compression member.

129-130. (Canceled).

131. (Previously Presented) A formwork system as claimed in claim 128 wherein said foam plastic is a foam polystyrene.
132. (Previously Presented) A formwork system as claimed in claim 128 wherein said upper and lower surfaces are laminated with a strength enhancing skin.
133. (Previously Presented) A formwork system as claimed in claim 132 wherein said skin is made from polypropylene or polyethylene.
134. (Currently Amended) A formwork system for use in fabricating a structural ~~one-way~~ ~~ribbed~~ reinforced floor ~~[[slab]]~~ from a construction material having both unhardened and hardened states, said formwork system having a plurality of components comprising:
- (a) a form panel unit comprising:
- i. a panel member made from a foam plastic and having an upper surface, a lower surface, opposed longitudinal side surfaces and opposed transverse front and rear side surfaces; said surfaces being configured for abutment with at least one other of said components of said formwork system; said panel member being adapted to be used as part of a form to retain said construction material in an unhardened state, said panel member having a longitudinally oriented depression in said upper surface;
 - ii. at least one transversely oriented reinforcement unit for reinforcing said panel member, ~~said at least one reinforcement unit having one or more components all of which contribute only to supporting said form panel unit,~~ ~~said at least one reinforcement unit having at least one panel support member;~~ said reinforcement unit further comprising a portion extending from proximate said upper surface of said panel member to ~~proximate and~~ proximate

passing through said lower surface of said panel member to provide support for and at said lower surface of said panel member;

(b) a structural supporting member;

said panel support member of said reinforcement unit having a portion for engagement with a structural supporting member oriented generally transverse to said support member and oriented generally transverse to the general orientation of said depression of said upper surface of said panel member;

said panel unit being configured such that said form panel unit may be supported on at least one structural supporting member by said at least one panel support member, such that said unhardened construction material can be retained above said upper surface of said panel member and can be supported at least in part by said form panel unit;

and wherein said surfaces of said panel member of said form panel unit are configured so as to be capable of mounting said form panel unit on said structural supporting member by vertical movement downwards of said form panel unit relative to said structural supporting member.

135. (Previously Presented) A formwork system as claimed in claim 134 wherein said depression is a generally downwardly angled portion located at a longitudinal side edge of said upper surface.
136. (Previously Presented) A system as claimed in claim 135 wherein said downwardly angled portion is oriented generally orthogonal to said generally transversely oriented reinforcement units.
- 137-142. (Canceled).

143. (Previously Presented) A formwork system as claimed in claim 134 wherein said reinforcing portion comprises a connecting member at least partly positioned within the panel member and extending between the upper and lower surfaces of said panel member, and wherein said reinforcement unit also comprises a connector having a cap portion providing a surface which assists in supporting said form panel unit proximate said lower surface of said panel member.

144. (Currently Amended) A formwork system for retaining load from a construction material having both unhardened and hardened states during fabrication of a floor or roof slab from said construction material, said system having components comprising:

a) a form panel unit comprising:

i. a panel member made from a foam plastic and adapted for use as part of said formwork system to retain said construction material when in an unhardened state, said panel member having an upper surface and a lower surface, said upper surface defining a shape of the lower surface of said slab, and said panel member having first and second opposed, transversely spaced, longitudinally extending side edges, said first and second side edges generally extending between a transversely extending front edge and a spaced transversely extending rear edge; said upper surface and said lower surface, said side edges, said front and rear edges of said panel member being configured for abutment with other components of said formwork system;

ii. ~~at least one~~ a plurality of reinforcement units, each said reinforcement unit being oriented transversely to said side edges of said panel member and longitudinally spaced from said front and rear edges each reinforcement unit having a plurality of portions comprising a unitary structure; each said reinforcement unit comprising a first portion and a second portion ~~rigidly interconnected by means of~~ with a third portion; said reinforcement unit being rigidly interconnected to said panel member ~~such that said form panel unit comprises a rigid structure, each~~ said reinforcement unit

contributing to internal reinforcing said panel member of said form panel unit and supporting said form panel unit, said first portion of each said reinforcement unit adapted for reinforcing said panel member at an intermediate position that is transversely and longitudinally located between and distant from said side edges and said front and rear edges respectively of said panel member; said first portion comprising a rigidly interconnected generally oriented vertical section and a generally oriented horizontal section; said generally oriented horizontal section of said first portion of said reinforcement unit comprising a generally horizontally, longitudinally and transversely extending and upwardly directed surface that supports said form panel unit at proximate said lower surface of said panel member;

said second portion of each said reinforcement unit adapted for supporting said form panel unit during fabrication of said floor or roof slab made from said construction material;

said form panel unit being capable of supporting said construction material above said panel member when in an unhardened state;

b) first and second spaced structural supporting members oriented generally longitudinally and adapted for assisting in supporting said form panel unit when fabricating said floor or roof slab with said construction material in said unhardened state;

said panel member being configured such that said form panel unit can be supported by each said reinforcement unit at least partially by said first and second structural supporting members, such that said unhardened construction material can be retained above said upper surface of said panel member to permit hardening of said construction material from said unhardened state to said hardened state, said reinforcement unit oriented generally transversely to said first and second structural supporting members such that said load to said panel member can be carried by said first portion of said reinforcement unit from said intermediate position and transferred

to said second portion of said reinforcement unit, said second portion transfers said load to said first and second structural members carrying said load, said second portion of said reinforcement unit having first and second opposed support portions, said first and second support portions being mounted respectively on upwardly directed surfaces of said first and second structural supporting members such that said form panel unit is at least in part supported by said first and second structural supporting members

wherein said first portion of said reinforcement unit of each of said plurality of reinforcement units comprises a connector and said third portion of said reinforcement unit comprises at least one vertical rod secured to said second portion and said connector, said vertical rod also being secured to said panel member with said connector, and wherein said connector reinforces said panel member and provides support to said form panel unit with said upwardly directed surface reinforcing said panel member.

145. (Previously Presented) A system as claimed in claim 144 wherein said first and second support portions of said second portion of said reinforcement unit each comprises a lower surface for supporting said form panel unit during fabrication of said floor or roof slab made from said construction material, said lower surfaces of said first and second support portions of each said second portion of said reinforcement unit being visible when said form panel unit is viewed upwardly from the bottom of said lower surface of said panel member.
146. (Canceled).
147. (Previously Presented) A system as claimed in claim 144 wherein said second portion of said reinforcement unit is positioned above and spaced from said upper surface of said panel member.
- 148-157. (Canceled).

158. (Currently Amended) A formwork system for fabricating a floor or roof slab from a construction material having both unhardened and hardened states, said system comprising:

a) a plurality of form panel units, each form panel unit comprising:

i. a panel member made from a foam plastic and being adapted for use as part of said form panel unit, to retain above said panel member said construction material in said unhardened state [[load]];

ii. at least one reinforcement unit oriented generally transversely, said reinforcement unit being directly connected to and reinforcing only said panel member of said form panel unit and no other panel members in any other form panel units of said plurality of form panel units; said at least one reinforcement unit also adapted for supporting said form panel unit without any temporary support members during said fabrication of said slab;

b) first and second spaced structural supporting member oriented generally longitudinally and adapted for assisting in supporting said plurality of form panel units when fabricating said floor or roof slab with said construction material in said unhardened state;

each of said plurality of form panel units in said system being configured to be at least in part supported by said first and second structural supporting member with at least one reinforcement unit such that said unhardened construction material can be retained above upper surface of said panel member to permit hardening of said construction material from said unhardened state to said hardened state.

159. (Currently Amended) A formwork assembly for fabricating a floor or roof slab from a construction material, said construction material having both hardened and unhardened states, said assembly comprising a plurality of panel units:

- a) [[a]] each of said plurality of panel [[unit]] units comprising:
- i. a panel member made from a foam plastic;
 - ii. at least one panel reinforcement unit having at least one panel support member integrated with only said panel member and no other panel members of any other panel units of said plurality of panel units, said reinforcement unit for reinforcing said panel member of said panel unit, said panel support member having at least a portion that is embedded and extends within said panel member between proximate an upper surface of said panel member to proximate a lower surface of said panel member to reinforce only said panel member with which it is integrated and no other panel members of any other of said plurality of panel units;

said panel unit being capable of supporting said construction material above said panel member when in an unhardened state without any temporary support members;

- b) at least one longitudinally oriented structural support member adapted to support at least in part said panel unit during said fabrication of said floor or roof slab when said construction material is in said unhardened state.